



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

to plant life. Methods of chemical analysis are wisely left for a separate work and the results of analysis alone are given when a knowledge of the same is necessary to an understanding of the discussion. The nature of the experiments, however, and the manipulation of the same, are given with sufficient fullness to enable the reader to judge of the value of the conclusions. The general arrangement of the book is as follows: Part I. treats of the nutrition of plants, of germination, and of the origin of the organic and inorganic constituents. Part II. makes a study of the atmosphere in its relation to plant life and of the gases influencing this life, of nitrogen, oxygen, carbonic acid, nitric acid, ammonia, etc. Part III. treats of soils, their formation and composition, and of their physical and chemical properties. A bibliography, coinciding with the arrangement of the text, completes the work.

The author is particularly interesting in his section on nitrification and also in treating of the assimilation of free atmospheric nitrogen by plants and soils. The experiments and conclusions of Berthelot and André are noted as well as those of M. Schloesing, the author concluding with; "Il n'entre pas dans notre programme d'insister davantage sur ces diverses recherches; car nous tentons d'ordinaire à n'avancer que des faits positifs. Ici il ne nous est guère permis de faire un choix entre les opinions produites. Il est à espérer qu'un prochain avenir levera les doutes qui règnent encore sur ce grave sujet."

The book has the usual exquisite neatness of first-class French publications, with full-bodied paper, clear print and broad margins, making it altogether a most enjoyable volume.

CHARLES PLATT.

Outlines of Forestry, or the Elementary Principles Underlying the Science of Forestry. By EDWIN J. HOUSTON. Philadelphia, J. B. Lippincott Co. 254 p. 12°. \$1.

This little book is a useful manual of facts relating to the subject. Among the matters considered are the conditions necessary for the growth of plants, distribution over the earth, forma-

tion of soil, animate and inanimate enemies of the forest, vapor, rain, drainage, climate, hail, reforestation and tree planting, etc. The last chapter, called "Primer of primers," contains in short, concise sentences the substance of what had been given at length in the earlier chapters. Taken by itself, it would serve a useful purpose in the education of the general public to the importance of the subject.

The book is, perhaps, unfortunately written in a loose and rather slovenly manner. It abounds in repetitions of not only the same ideas, but also of nearly identical words. The following extracts are particularly bad examples, but they fairly represent the ordinary style of the writer: "Heat and light are to be found in practically all parts of the earth. They differ, however, in amount in different regions of the earth, and such differences cause the differences that are noticed in the plants that grow in different regions." "The quantity of moisture in the air differs greatly in different parts of the earth, and on this difference, together with the difference in temperature, depends the differences observed in the plants of various regions." "Each section of the country possesses, so to speak, a nationality in its plants, or, in other words, there lives in each section of country a particular nation of plants. Such a nation of plants, or the plants peculiar to a particular section of country, is called its flora."

The author makes use of a new word, "heatshine," which is rather difficult to define. "The sunshine and the heatshine which awaken the sleeping germ and call it into activity," etc. In the appendix are given various lists of trees suitable for planting, and these contain some curious errors. For example, under the head of "deciduous trees" we find maples, hickories, cedars, firs and pines, while under "evergreens" are placed spruce, larch, sweet gum, poplar, oak, walnut, etc. In another place we observe under "conifers" bald cypress, red cedar, white pine, black cherry and European alder, while the European larch figures in another table as an evergreen. Errors of this kind rather detract from the value of the book.

JOSEPH F. JAMES.

Delicious Drink.

Horsford's Acid Phosphate

with water and sugar only, makes a delicious, healthful and invigorating drink.

Allays the thirst, aids digestion, and relieves the lassitude so common in midsummer.

Dr. M. H. Henry, New York, says:
"When completely tired out by prolonged wakefulness and overwork, it is of the greatest value to me. As a beverage it possesses charms beyond anything I know of in the form of medicine."

Descriptive pamphlet free.

Rumford Chemical Works, Providence, R. I.

Beware of Substitutes and Imitations.

Exchanges.

[Free of charge to all, if of satisfactory character. Address N. D. C. Hodges, 874 Broadway, New York.]

For sale or exchange.—A complete set of the report of the last Geological Survey of Wisconsin, T. C. Chamberlin, geologist. It consists of four large volumes, finely illustrated, and upwards of forty large maps and charts. Will sell for cash or exchange for a microscope. Address Geo. Beck, Platteville, Wis.

For sale or exchange for copper coins or rare postage stamps. Tryon's American Marine Conchology, containing hand colored figures of all the shells of the Atlantic coast of the United States. Presentation copy, autograph, etc. One vol., half morocco, \$5.00, usual price, \$25; postpaid, \$15. Botany of the Fortieth Parallel of the Hundredth Meridian of the Pacific R. R. Survey. Other Botanical works and works on Ethnology. F. A. Hassler, M.D., Santa Ana, Cal.

I have a fire-proof safe, weight 1,170 pounds, which I will sell cheap or exchange for a gasoline engine or some other things that may happen to suit. The safe is nearly new, used a short time only. Make offers. A. Lagerstrom, Cannon Falls, Minn., Box 857.

For exchange.—Hudson River fossils in good condition from the vicinity of Moore's Hill, Ind., also land and fresh water shells. Desire fossils and shells from other groups and localities. Address Geo. C. Hubbard, Moore's Hill, Ind.

For sale at low price.—A fine old-fashioned photographic camera, rosewood box, one foot square, lenses, four inches diameter, made by C. C. Harrison. Plateholders, troughs, baths, etc., all in large wooden case, formerly the property of the late President Moore, of Columbia College. This is a fine example of an instrument of the best make for the old wet-process methods, and valuable to any institution or amateur interested in the history of photography in the U. S. Address M. S. Daniel, 236 W. 4th St., New York.

I wish to exchange a collection of 7,000 shells, 1001 species and varieties, American and foreign, land, fluviatile and marine, for a good microscope and accessories. Address, with particulars, Dr. Lorenzo G. Yates, Santa Barbara, California.

For exchange.—I wish to exchange Lepidoptera of South Dakota and other sections, for Lepidoptera of the world. Will purchase species of North America. Correspondence solicited, particularly with collectors in the Rocky Mountains, Pacific coast and Hudson's Bay regions. P. C. Truman, Volga, Brookings county, South Dakota.

Wants.

A YOUNG man who has been through the course in mathematics in Princeton University, wishes some tutoring this summer. Rates reasonable. Address P. H. Westcott, Cramer's Hill, Camden Co., N. J.

A GRADUATE of an American Polytechnic institution and of a German university (Göttingen), seeks a position to teach chemistry in a college or similar institution. Five years' experience in teaching chemistry. Address Chemist, 737 Cary St., Brockton, Mass.

A N experienced teacher in general biology wishes a position in a first-class college or university. Three years in post-graduate study. Extensive experience. Strong endorsements. Address E. W. Doran, Ph.D., 1327 G St., N. W., Washington, D. C.

T HREE teachers wanted for a male and female seminary in central New York. Typewriting, etc., languages, mathematics, sciences, *et. al.* Send stamp with and for particulars. Box 701, Hempstead, L. I.

A ZOOLOGICAL collector and taxidermist of ten years' experience in the field is now open to engagement, for either field or laboratory work. References furnished. Address Taxidermist, Box 75, White Sulphur Springs, West Va.

W ANTED, as principal of a flourishing technical school, a gentleman of education and experience who will be capable of supervising both mechanical and common school instruction. Special familiarity with some technical branch desirable. Address, giving age, qualifications, etc., J. B. Bloomington, Fifty-ninth street and Third avenue, N. Y.

W ANTED.—A young man as assistant in our microscopical department. Queen & Co., Philadelphia.

T HE undersigned desires specimens of North American Gallinae in the flesh for the study of their pterylosis. These species are especially desired: *Colinus ridgwayi*, *cyrtornyx montezumae*, *deudragapus franklini*, *lagopus velchi*, *tympanuchus cupido* and *pedioecetes phasianellus*. Any persons having alcoholic specimens which they are willing to loan or who can obtain specimens of any of the above are requested to communicate with Hubert Lyman Clark, 3923 Fifth Avenue, Pittsburgh, Pa.